Effect of sports sponsorship by tobacco companies on children's experimentation with tobacco

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Tobacco companies often seem to direct their advertising campaigns at adolescents—for example, the campaign using the cartoon character Joe Camel.[1] These advertisements are thought to influence adolescents' perceptions and behaviour,[2] and sponsorship of sports events by tobacco companies may have the same effect.[3] We studied the effect of sports sponsorship on children's experimentation with tobacco.

Subjects, methods, and results

The India-New Zealand cricket series, which was televised live in India during October-November 1995, was sponsored by the tobacco company Wills (a subsidiary of British America Tobacco Company) and the logo was prominently displayed on the outfits of the players and at the ground. Four Square cigarettes, and Manikchand Gutkha, a smokeless tobacco product, were also advertised.

We randomly selected one class of year IX from all 53 high schools in urban Goa. The 1948 students in these classes (total of 5362 children in year IX) were asked to complete a structured questionnaire, in January 1996. The questionnaire was administered by the class teacher.

All students completed the questionnaire but not everyone answered all the questions. The median age was 14 (range 13-16) years; 1013 were boys and 935 girls. Most children (1480) knew that tobacco was as addictive as heroin and caused cancer and heart disease and that smoking reduces life span. Despite this knowledge, 66 out of 1275 (5.2%) children who watched the matches were tempted to buy, and 40 (3.1%) bought and smoked Wills cigarettes.

Although all the children were aware of sponsorship of cricket matches by three tobacco products, experimentation with tobacco was significantly higher among those who watched the matches (100/1275 (7.8%) *v* 29/605 (4.8%), P = 0.01). Girls are culturally inhibited from smoking in India, but the rate of smoking Wills among girls who watched the series (15/532 (2.8%)) was the same as for boys (27/803 (3.4%), P = 0.6).

Although no player in the Indian team smokes, 1110 children thought that at least one player smoked and 428 thought that at least four players smoked. Table 1 shows that children who believed that there were no smokers in the team were significantly less likely to experiment with Wills than those who believed that there were some smokers (odds ratio = 3.55, 95% confidence interval 1.07 to 14.57). Only 1.7% (26/154) of those who believed that Sunil Gawaskar (an Indian cricketing hero) was a non-smoker had experimented with Wills compared with 5.5% (23/414)of those who believed he smoked. The proportion of children who thought that Gawaskar smoked was significantly higher among those who watched the matches (313/1355 *v* 115/607; odds ratio = 1.3, 95% confidence interval 1.02 to 1.68).

The likelihood of experimentation with tobacco was higher when the children perceived that smoking gives more strength, improves batting and fielding, and increases chances of winning (table 1). The perception that smoking improved performance increased with watching the match (66/1335 *v* 16/607; 1.92, 1.07 to 3.5).

In a multiple linear regression analysis, the perception that smoking improves performance at cricket was the most significant factor influencing experimentation with Wills, followed by the perception that players smoked, watching the series, and not knowing that smoking reduces lifespan (partial $F = 7.64$, 4.04, 3.55, and 2.74 respectively). Thus knowledge about the adverse effects of smoking was overshadowed by false perceptions created by tobacco sponsorship.

Comment

Almost 100% of the population in urban Goa has access to a television, and watching cricket is popular across all social classes. However, the possibility that the children who were interested enough in cricket to watch it on television were also more likely to experiment with tobacco cannot be completely excluded.

Despite a high level of knowledge about the adverse effects of tobacco, cricket sponsorship by tobacco companies increased children's likelihood of experimentation with tobacco by creating false associations between smoking and sport. Many of the children believed that the cricketers smoked. We previously found that half of those who experiment with smoking will become regular smokers.[4] Our results therefore support the case for banning sports sponsorship by tobacco companies.

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Table 1—*Effect of children's perceptions about smoking on likelihood of experimenting with tobacco*

Perception about smoking	No of children experimenting who agreed	No of children experimenting who disagreed	Odds ratio (95% confidence interval)
Gives more strength	14/127	35/1814	6.3 (3.1 to 12.1)
Improves batting	8/124	41/1818	2.99 (1.25 to 6.87)
Improves fielding	13/82	36/1860	9.55 (4.55 to 19.79)
Increases chances of winning	13/112	36/1829	6.5 (3.16 to 13.35)
Members of India's cricket team smoked	24/912	3/397	3.55 (1.07 to 18.57)
Sunil Gawaskar smoked	23/414	26/1514	3.37 (1.84 to 6.17)

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